WHAT IS CLAIMED IS:

1. A method for displaying flight information, comprising:

displaying a first characteristic sign illustrating a speed vector of an aircraft;

determining a first longitudinal margin of maneuver of the aircraft as a load factor; and

displaying a second characteristic sign such that a position of the second characteristic sign relative to the first characteristic sign illustrates the first longitudinal margin of maneuver.

2. The method of Claim 1, wherein the first characteristic sign and the second characteristic sign are displayed in a heads-up display viewfinder.

3. The method of Claim 1, wherein the first longitudinal margin of maneuver is related to one of a pitch-up maneuver and a pitch-down maneuver of the aircraft.

4. The method of Claim 1, further comprising:

determining a second longitudinal margin of maneuver of the aircraft as a load factor, wherein the first longitudinal margin of maneuver is related to a pitch-up maneuver of the aircraft, and the second longitudinal margin of maneuver is related to a pitch-down maneuver of the aircraft; and

displaying an additional second characteristic sign such that a position of the additional second characteristic sign relative to the first characteristic sign illustrates the second longitudinal margin of maneuver.

5. The method of Claim 4, wherein,

a distance between the first characteristic sign and the second characteristic sign is proportional to the first longitudinal margin of maneuver, and

a distance between the first characteristic sign and the additional second characteristic sign is proportional to the second longitudinal margin of maneuver.

6. The method of Claim 1, wherein the second characteristic sign is displayed only when the determined first longitudinal margin of maneuver is less than a predetermined value.

7. The method of Claim 1, wherein the first longitudinal margin of maneuver is determined by selecting the smaller of a first load factor margin and a second margin.

8. The method of Claim 7, wherein,

the second margin corresponds to an angle of incidence margin, and

the angle of incidence margin is calculated from the following expression:

$\Delta\alpha = 1 - [(Nz / \Delta Nmax) * ((\alpha max - \alpha)/(\alpha - \alpha 0))]$,

wherein $\Delta\alpha$ is the angle of incidence margin, Nz is a load factor, ΔNmax is a maximum value of margin of maneuver depicted, α is a angle of incidence, αmax is a maximum angle of incidence, and $\alpha 0$ is a zero lift angle of incidence.

9. The method of Claim 7, wherein,

the second margin corresponds to a speed margin, and

the speed margin is calculated from the following expression:

$\Delta V = 1 - [(Nz + Kp(Vmax - V) - Kd(dV/dt))/ \Delta Nmax]$,

wherein ΔV is the speed margin, Nz is a load factor, ΔNmax is a maximum value of margin of maneuver depicted, V is the speed of the aircraft, Vmax is a maximum speed of the aircraft, (dV/dt) is a derivative with respect to time of the speed V, and Kp and Kd are predetermined parameters.

10. A method for displaying flight information, comprising:

providing a heads-up display in an aircraft;

displaying a speed vector of the aircraft on the heads-up display;

determining a margin of maneuver of the aircraft based on at least one of a speed of the aircraft and an angle of incidence of the aircraft; and

displaying the margin of maneuver concurrently with the speed vector on the heads-up display.

11. The method of Claim 10, wherein the margin of maneuver is determined as a load factor.

12. The method of Claim 10, wherein the margin of maneuver is related to a pitch-up maneuver or a pitch-down maneuver of the aircraft.

13. The method of Claim 10, wherein,

the speed vector of the aircraft is indicated by a first characteristic sign on the heads-up display, and

the margin of maneuver is indicated by a second characteristic sign on the heads-up display.

14. The method of Claim 13, wherein a distance between the first characteristic sign and the second characteristic sign is proportional to the determined margin of maneuver.

15. The method of Claim 13, wherein the second characteristic sign is displayed only when the determined margin of maneuver is less than a predetermined value.